

Meningococcal Disease

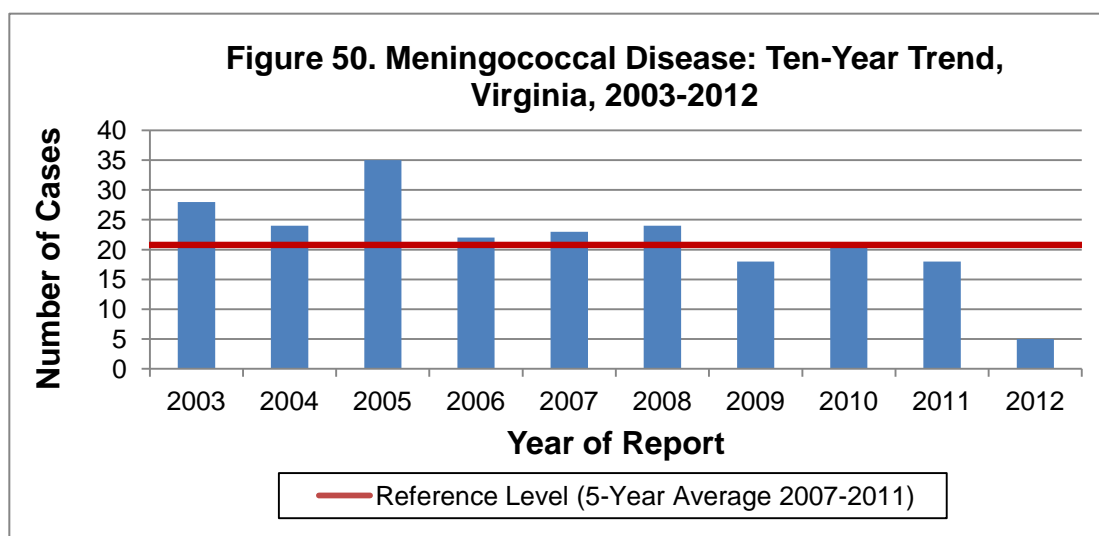
Agent: *Neisseria meningitidis* (bacteria)

Mode of Transmission: Transmission occurs through contact with respiratory droplets from the nose or throat of an infected person (e.g., through coughing or kissing).

Signs/Symptoms: Meningitis is the most common presentation of disease and includes sudden onset of fever, headache, nausea, and often vomiting, stiff neck, sensitivity to light, and confusion. A rash may be present. A bloodstream infection may also occur (without meningitis), leading to abrupt onset of fever and a rash; it is often associated with shock and multi-organ failure. Less commonly, meningococcal disease can lead to pneumonia, arthritis, or middle ear infections.

Prevention: In the United States, there are two vaccines that provide protection against meningococcal disease. The vaccines are protective against four of the five serogroups that cause disease (A, C, Y, and W-135, but not B).

Other Important Information: Crowding, exposure to tobacco smoke, and preceding upper respiratory tract infections increase the risk of disease. Five to ten percent of people carry *N. meningitidis* in their nose without having any symptoms of disease; those who develop disease are usually infected by a carrier who does not have symptoms.



During 2012, five cases of meningococcal disease were reported in Virginia with a statewide incidence rate of 0.1 per 100,000. This represents a 72% decrease from the eighteen cases reported in 2011, and a 76% decrease from the five-year average of 20.8 cases per year (Figure 50). The national incidence rate for 2005-2011 was 0.3 per 100,000 and reflects a continued decline in rates since a peak in the late 1990s.

The 20-29 and 50-59 year age groups both had two cases and an incidence rate of 0.2 per 100,000 each. The 60 year and older age group had the remaining case and an incidence rate 0.1 per 100,000. The four cases for whom race was reported occurred in the white population (0.1 per 100,000 population). Incidence was 0.1 per 100,000 among both males and females. By region, the highest incidence rate was observed in the northwest (2 cases, 0.2 per 100,000), followed by the southwest and eastern regions (0.1 per 100,000). No

cases were reported from the northern or central regions. Two cases occurred during the second quarter of the year, while the remaining three occurred during the fourth quarter.

Of the four cases for which a serogroup was identified, two were group C, one was group B and one was group Y (Figure 51). There was no indication that any of the cases reported with serogroup C or Y had received the meningococcal vaccine. No outbreaks and no deaths attributed to meningococcal disease were reported in 2012.

